



May 25, 2018

Via Electronic Filing

Federal Communications Commission
Experimental Licensing Branch
MS 1300E1
445 Twelfth Street, S.W.
Washington, DC 20554

**Re: Annual Progress Report of HNS License Sub, LLC Pursuant
to Call Sign WE2XEW**

Dear Sir or Madam:

This Progress Report of HNS License Sub, LLC ("Hughes") is submitted pursuant to the special conditions associated with Hughes' Experimental Radio Service license in Call Sign WE2XEW.

On January 1, 2006, Hughes obtained an authorization under Call Sign WE2XEW to conduct experimental operations with in-motion earth terminals in the fixed-satellite service ("FSS") frequencies at 14-14.5 GHz and 29.5-30 GHz. Subsequent modifications have authorized operations on aeronautical platforms, expanded the bounds of the upper band to 29.25-30 GHz, and added additional satellites as points of communication.¹ The experimental operations conducted under this license respond to potential and actual customer requirements, assess or demonstrate the viability of particular equipment and service configurations that are under development, and/or test different antenna products from various manufacturers in order to assess the performance of these products when integrated into the Hughes VSAT system.

Hughes continues studies toward integration of Hughes aeronautical K_a and K_u band terminals with various manufacturers' antennas, assessing Doppler shift, beam switching, and satellite switching performance. These experiments have led Hughes to improve the integration of its dual-band Aero antenna and modems through its JUPITER system, achieving a substantial increase in throughput speed.² Hughes plans to continue fixed and mobile testing in the 2018-2019 license period with terminals mounted on

¹ Within the previous year, on June 21, 2017, Hughes filed a request (0147-EX-CM-2017) to add the Intelsat 29e space station at 50° W.L. (Call Sign S2913) and the Sky-B1 space station at 43.15° W.L. (Call Sign S2922) as additional points of communication in the Ku-band fixed-satellite service frequencies (14.0-14.5 GHz). The Commission granted this modification application on June 22, 2017.

² Press Release, Hughes Enhances JUPITER System, the World's Most Advanced Broadband Satellite Platform, March 13, 2018, available at <https://www.prnewswire.com/news-releases/hughes-enhances-jupiter-system-the-worlds-most-advanced-broadband-satellite-platform-300611933.html>.

various mobile platforms. The WE2XEW license has supported these experiments by providing uplink capabilities for these tests.

Please let me know if you have any questions regarding this required report or if any additional information is needed.

Respectfully submitted,

/s/ Brennan T. Price

Brennan Price

Senior Principal Engineer, Regulatory Affairs